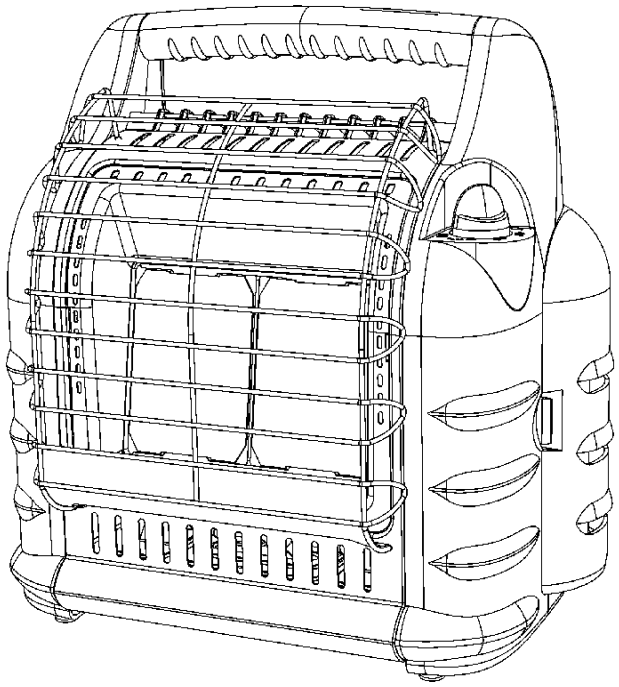
START SERIAL #MHC-748000205832

OPERATING INSTRUCTIONS AND OWNER'S MANUAL

Model # MH18B

READ INSTRUCTIONS CAREFULLY: Read and follow all instructions. Place instructions in a safe place for future reference. Do not allow anyone who has not read these instructions to assemble, light, adjust or operate the heater.



BIG Buddy

PORTABLE PROPANE HEATER FOR RECREATIONAL AND COMMERCIAL USE

For California Sale

WARNING: **If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life.**

— Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
— An LP cylinder not connected for use shall not be stored in the vicinity of this or any other appliance.
— WHAT TO DO IF YOU SMELL GAS
  • Do not try to light appliance.
  • Extinguish any open flame.
  • Shut off gas to appliance.
— Service must be performed by a qualified service agency.

This is an unvented gas-fired portable heater. It uses air (oxygen) from the area in which it is used. Adequate combustion and ventilation air must be provided. Refer to page 2.

WARNING:

⚠ Every time hose or tank is connected to unit, connection must be checked for leaks in one or more ways: Apply soapy water to connection, look for bubbles, listen for hiss of escaping gas, feel for extreme cold, smell for rotten egg odor. Do not use if leaking!

WARNING:

⚠ Any changes to this heater or its controls can be dangerous.

WARNING:

⚠ Early signs of carbon monoxide poisoning resemble the flu, with headache, dizziness and/or nausea. If you have these signs, heater may not be working properly. Get fresh air at once! Have heater serviced.

WARNING:

⚠ If the recreational or commercial enclosure does not have a window or roof vent, DO NOT USE THIS HEATER INSIDE.

THE STATE OF CALIFORNIA REQUIRES THE FOLLOWING WARNING:

WARNING:

Combustion by-products produced when using this product contain carbon monoxide, a chemical known to the State of California to cause cancer and birth defects (or other reproductive harm).

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SPECIFICATIONS

MODEL NO.	MH18B
GAS TYPE	PROPANE
INPUT BTU/HR.	4,000 / 9,000 /18,000
CLEARANCE TO COMBUSTIBLES	
TOP	30"
FRONT	24"
SIDES	6"
REAR	0"

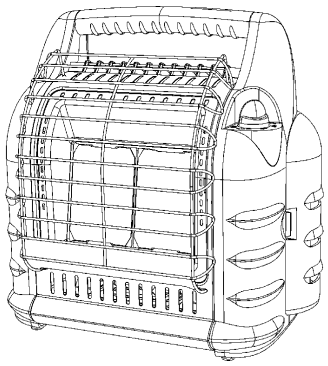
Caution: Some carpets or linoleum surfaces may discolor if heater is placed directly on these floor coverings.

GENERAL SAFETY INSTRUCTIONS

THIS IS A HEATING APPLIANCE. DO NOT OPERATE THIS APPLIANCE WITHOUT THE FRONT WIRE GUARD INSTALLED

- Due to high temperatures, the appliance should be located out of traffic and away from combustible materials.
- Children and adults should be alerted to the hazard of high surface temperatures and should stay away to avoid burns or clothing ignition.
- Young children should be carefully supervised when they are near the appliance.
- Do not place clothing or other flammable material on or near the appliance.
- Do not operate heater in any moving vehicle.
- This heater can only be used in a recreational or commercial enclosure with a window or roof vent. It may also be used outdoors.
- This heater requires a vent area of 18 square inches (example 4 ¼" x 4 ¼" opening) minimum for adequate ventilation during operation. Do not use other fuel burning appliances inside.
- GAS PRESSURE AT HEATER IS REGULATED AND FIXED AT 11" W.C. WHEN USING A REMOTE HOSE CONNECTION TO HEATER TANK SWIVEL(S), DO NOT REGULATE OR REDUCE PROPANE TANK SUPPLY PRESSURE TO HEATER.
- **WARNING:** ANY HOSE CONNECTION TO A QUICK DISCONNECT FITTING ON HEATER MUST BE REGULATED TO 11" W.C. PRESSURE
- REGULATOR IN HEATER MUST ALWAYS BE IN PLACE DURING OPERATION.

- Any safety screen or guard removed for servicing the appliance must be replaced prior to operating the heater.
- The appliance should be inspected before each use. Frequent cleaning may be required. The control compartments, burner(s) and circulating air passageways of the appliance must be kept clean, see MAINTENANCE.
- DO NOT use this heater if any part has been under water. Immediately call a qualified service technician to inspect the heater and to replace any part of the control system and any gas control, which has been under water.
- When used without adequate combustion and ventilation air, this heater may give off excessive CARBON MONOXIDE, an odorless, poisonous gas.
- Some people - pregnant women, persons with heart or lung disease, anemia, those under the influence of alcohol, those at high altitudes - are more affected by carbon monoxide than others.
- When heater is placed on the ground, make sure the ground is level and keep any objects at least 24 inches from the front of the heater. THIS HEATER IS EQUIPPED WITH A TIP OVER SWITCH THAT WILL SHUT THE HEATER OFF IF THE HEATER TIPS OVER HOWEVER, DO NOT LEAVE HEATER UNATTENDED OR WHERE CHILDREN MAY CAUSE THE HEATER TO TIP OVER. NEVER OPERATE THE HEATER WHILE SLEEPING!



GENERAL INFORMATION:

- This heater is safe for indoor use in small recreational enclosures, having means for providing combustion air and ventilation, such as enclosed porches, cabins, fishing huts, trailers, tent trailers, tents, truck caps and vans. It may be used in commercial enclosures, having means for providing combustion air and ventilation, such as construction trailers or temporary work enclosures.

  Note: The heater can be used outdoors, but may experience nuisance shutoffs in certain wind conditions.
- When the heater is cold or at room temperature, it will take a few minutes for the burner(s) tile to turn bright orange. This is normal and the heater is working properly. If burner(s) tile is visibly flaming, turn heater off and call a qualified service technician.
- When the unit is lit, there should be about a quarter inch border around the tile that will not turn bright orange. This is normal.
- When operating the heater at altitudes over 7,000 FT. above sea level, the unit may not burn as bright as in lower altitudes. This is normal. At higher altitudes, the heater may shut-off. If this happens, provide fresh air, wait 5 minutes and re-light. Due to local atmospheric conditions heater may not re-light.
- Operating time will vary depending on the heater setting and the supply cylinder size. (One 1 lb. cylinder: 1.5 to 6 hours. Two 1 lb. cylinders: 3 to 12 hours. Two 20 lb. cylinders: 50 to 220 hours.) Heater may be operated from quick disconnect, one or both tank swivel inlets.
- When moving heater when lit or bumping heater setting it down, tip over switch may shut off heater. If this happens, re-light.
- **NOTE: THIS HEATER MAY BE OPERATED WITH (1) OR (2) DISPOSABLE 1 LB. PROPANE CYLINDERS OR WITH A REMOTE REFILLABLE CYLINDER(S) MAX. 20 LBS USING (1) OR (2) F273701, F273702 OR F272702 HOSE ASSEMBLIES WITH FUEL FILTERS (F273699) ON EACH HOSE ASSEMBLY. IT MAY ALSO BE OPERATED WITH (1) F271802 HOSE ASSEMBLY CONNECTED TO A REGULATED (11" W.C.) PROPANE SOURCE OR (1) F271803 HOSE ASSEMBLY WITH 11" REGULATOR WITH ACME NUT.**

LIGHTING / OPERATING INSTRUCTIONS FOR USE WITH DISPOSABLE 1 LB. PROPANE CYLINDERS:

WARNING: Always inspect propane cylinder and heater propane connections for damage, dirt, and debris before attaching propane cylinder. Do not use if head of cylinder is damaged, punctured or deteriorated.

ALWAYS ATTACH OR DETACH CYLINDER OUTDOORS AWAY FROM FLAMES, OTHER IGNITION SOURCES, AND ONLY WHEN HEATER IS COOL TO TOUCH. NEVER SMOKE WHEN ATTACHING OR REMOVING PROPANE CYLINDER OR MAKING REMOTE CONNECTIONS!

- Use only LP-gas cylinders marked in accordance with the U.S. Dept. of Transportation (DOT).
- Use only 16.4 oz. (1 lb.) disposable cylinders that mate with No. 600 valve connection.
- Heater and attached cylinder(s) must be in an upright position during operation.
- Make sure five-position Control Knob is in "OFF" position; see Figure 1.
- Screw 1 lb. disposable LP-gas supply cylinder(s) clockwise (from bottom) into portable heater until hand-tight.
- Check cylinder(s) connection for leaks with soapy water at the threaded connection under the domed plastic cover where the cylinder screws into the tank swivel. SEE WARNING!
- Depress the Control Knob and turn counterclockwise to the pilot postion.

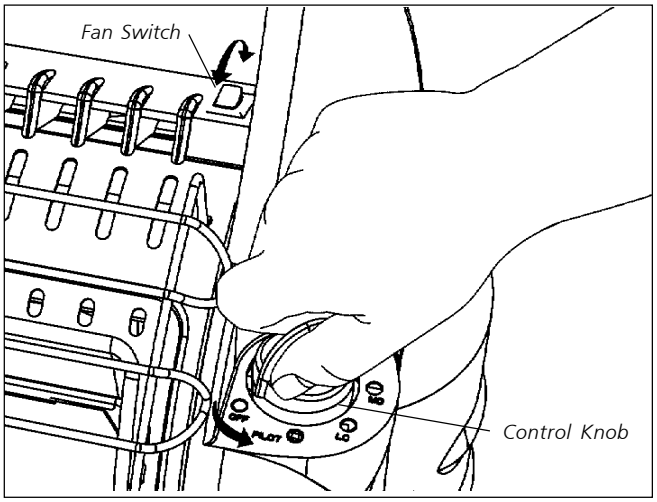


Figure1

- Hold Control Knob down in the pilot position for 30-40 seconds.
- While holding down the Control Knob, rotate clockwise to the OFF position and immediately turn back to the pilot position, a spark will be generated at the pilot assembly and the heater should light.
- If the heater does not light on the first attempt, repeat the procedure.
- Once the pilot has lit, hold the Control Knob down for an additional 30 seconds to heat the thermocouple. After 30 seconds, release the Control Knob and the pilot should remain lit.
- If the pilot goes out repeat the lighting procedure.
- After lighting pilot, release Control Knob. Control Knob should return to fully extended position. To operate heater slightly depress knob and gently turn to lock in desired position.
- Turn control knob to "LO" or "MD" position to light heater. Leave on "LO" or "MD" position until first burner tile has turned bright orange.
- After first burner tile has turned bright orange, adjust heat output by turning Control Knob to desired position ("LO", "MD" or "HI")

Warning:

⚠ DO NOT OPERATE HEATER UNLESS CONTROL KNOB IS LOCKED IN A POSITION MARKED "HI", "MD", "LO" or "PILOT". NEVER SET CONTROL KNOB BETWEEN LOCKED POSITIONS. POOR COMBUSTION AND HIGHER LEVELS OF CARBON MONOXIDE MAY RESULT.

- For added heat circulation turn red fan switch to on. The fan switch is located just left of control knob side handel support. See Figure 1.
- Installation of 4 D-cell batteries is required for fan operation. Battery box is located on lower back panel of heater. Follow instructions on battery cover for correct battery installation. See figure 2.
- Heater can also be powered by electrical adapter F276127. Required adapter to be 6 volt DC up to 800 milliamp current with positive tip polarity. See figure 2.
- To shut off heater, slightly push down and turn Control Knob clockwise to "OFF" position.
- **CAUTION:** After turning heater off, wire guard will remain hot. Allow to thoroughly cool before storing.
- Do not operate, store or remove cylinder(s) near flammable items or ignition sources.
- LP-GAS CYLINDERS MUST BE DISCONNECTED FROM HEATER WHEN NOT IN USE!

LIGHTING / OPERATING INSTRUCTIONS FOR USE WITH HOSE(S) CONNECTED TO A REMOTE CYLINDER, MAXIMUM SIZE 20 LBS:

- **WARNING:** ANY HOSE CONNECTION TO A QUICK DISCONNECT FITTING ON HEATER MUST BE REGULATED TO 11" W.C. PRESSURE
- This Heater may be used in a Recreational Enclosure or Temporary Construction Work Enclosure with a Remote Refillable Propane Cylinder ONLY when the Cylinder is Located Outdoors and the Heater is Used with Mr. Heater Hose No. F273701, F273702 or F272702 and fuel filter F273699. Fuel filter must be replaced annually.
- Mr. Heater Hose No. F271802 which includes a quick disconnect fitting and a 3/8" female flare fitting connected to a regulated (11" W.C.) propane source.
- Mr. Heater Hose No. F271803 which includes a quick disconnect fitting and a 11" W.C. regulator.
- **DANGER:** NEVER bring a refillable propane cylinder indoors. A fire or explosion can occur causing property damage, serious injury or death!
- Inspect the hose before each use of the heater. If there is excessive abrasion or wear, or the hose is cut, replace prior to using the heater with one of the Mr. Heater Hose No's. shown above.
- The propane cylinder must include a listed overfilling protection device as well as a collar to protect the cylinder valve.
- Heater must be in an upright position during operation.
- Make sure five-position control knob is in "OFF" position; see Figure 1, at left.
- Mr. Heater strongly recommends using disposable fuel filter F273699, which connects to tank swivel on heater to trap any oil substances when connected to a remote cylinder that can make the heater inoperable.
- Screw hose connector into tank swivel or fuel filter on heater or connect to quick disconnect and screw connector on other end of hose into LP-gas supply cylinder valve. Tighten all hose connections.
- Open valve at LP-gas supply cylinder.

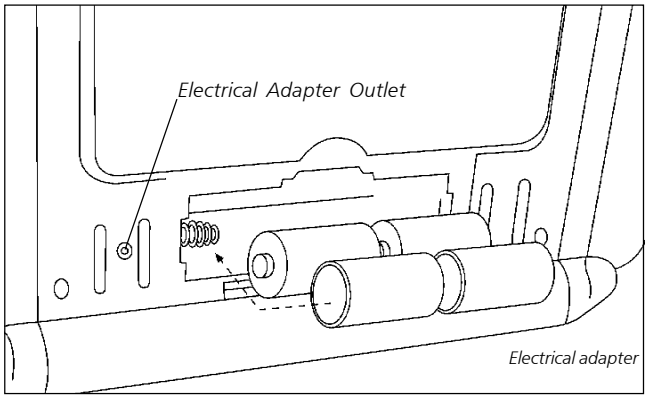


Figure 2

- Check all hose connections for leaks with soapy water at the threaded connection under the domed plastic cover where the hose connector screws into the tank swivel and/or fuel filter and at LP-gas supply cylinder. SEE WARNING!
- Depress the control knob and turn counter-clockwise to the pilot position.
- Hold control knob down in the pilot position for 1-5 minutes.
- While holding down the control knob, rotate clockwise to the OFF position and immediately turn back to the pilot position, a spark will be generated at the pilot assembly and the heater should light.
- If the heatere does not light on the first attempt, repeat the procedure.
- Once the pilot has lit, hold the control knob down for an additional 30 seconds to heat the thermocouple. After 30 seconds, release the control knob and the pilot should remain lit.
- If the pilot goes out repeat the lighting procedure.
- After lighting pilot, release knob. Knob should return to fully extended position. To operate heater slightly depress knob and gently turn to lock in desired position.
- Turn control knob to "LO" or "MD" position to light heater. Leave on "LO" or "MD" position until first burner tile has turned bright orange.
- After first burner tile has turned bright orange, adjust heat output by turning Control Knob to desired position ("LO", "MD" or "HI" setting).

⚠ **Caution:** Do not try to adjust heating levels by using the propane tank shut-off valve,

Warning:

⚠ DO NOT OPERATE HEATER UNLESS CONTROL KNOB IS LOCKED IN A POSITION MARKED "HI", "MD", "LO"or "PILOT". NEVER SET CONTROL KNOB BETWEEN LOCKED POSITIONS. POOR COMBUSTION AND HIGHER LEVELS OF CARBON MONOXIDE MAY RESULT.

- Installation of 4 D-cell batteries is required for fan operation. Battery box is located on lower back panel of heater. Follow instructions on battery cover for correct battery installation. See figure 2.
- Heater can also be powered by electrical adapter, F276127. Required adapter to be 6 volt DC up to 800 milliamp current with positive tip polarity. See figure 2.
- To shut off heater, shut off propane at supply tank, allow heater to use-up propane in supply line until heater shuts off, then slightly push down and turn Control Knob clockwise to "OFF" position.
- **CAUTION:** After turning heater off, wire guard will remain hot. Allow to thoroughly cool before storing.
- When not in use, the gas must be turned off at the LP-gas supply cylinder. As stated before allow heater to use up propane in supply line until heater shuts off. When the LP-gas supply cylinder is not disconnected from the heater, the heater and the cylinder must be stored outdoors, in a well ventilated space, out of reach of

children, and must not be stored in a building, garage or any other enclosed area.

- Indoor storage of the heater is permissible only if the cylinder is disconnected and removed from the heater. Cylinders must be stored outdoors out of the reach of children and must not be stored in a building, garage or any other enclosed area.

MAINTENANCE:

Always keep the heater area clear and free from combustible materials, gasoline and other flammable vapors and liquids.

Keep the vent areas (slots in the bottom and the top at the front of heater) clear at all times.

Visually inspect the pilot flame and burner periodically during use. The pilot flame should be blue in color (not yellow) and will extend beyond the thermocouple. The flame will surround the thermocouple just below the tip, see Figure 3. A slight yellow flame may occur where the pilot flame and main burner flame meet. The burner(s) should be bright orange (with a slight blue color around the border, a red-orange haze that is visible on the ceramic tile is acceptable) and without a noticeable flame. A blue flame that rolls out at the top of the ceramic tile indicates an

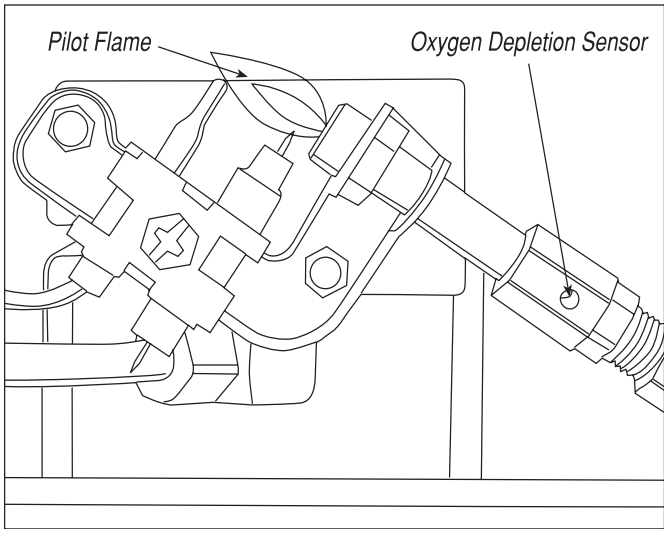


Figure 3

accumulation of dust, lint or spider webs inside the casing assembly and main burner assembly. If the pilot is yellow or the burner has a noticeable flame, cleaning may be required. Use the following procedure to inspect the casing assembly and main burner assembly.

It is necessary to periodically check the burner(s) orifice and burner venturi tube to make sure they are clear of insects/nests or spider webs that may accumulate over time. A clogged tube can lead to a fire.

1 Allow heater to thoroughly cool before performing any maintenance.
2 Remove disposable 1 lb. cylinder(s) from heater or turn OFF gas supply at remote cylinder valve, and disconnect hose from heater.
3 Remove wire guard from front of heater by gently bending to remove from holes in front cover.
4 Remove (4) screws securing back cover to heater. Lift up slightly to release (2) plastic hooks on top of back cover.
5 Remove back cover.
6 Remove (3) screws attaching lower baffle to expose burner air openings.
7 Inspect interior of casing assembly for accumulation of dust, lint or spider webs. If necessary, clean interior of casing assembly with a vacuum cleaner or apply air pressure (max. 30 psi). Do not damage any components within casing assembly when you are cleaning.
8 Inspect and clean main burner orifice located at bottom of burner venturi tube, by using a vacuum or apply air pressure at orifice opening.
9 Inspect and clean pilot (mounted to bracket) by using a vacuum or apply air pressure through the holes in the pilot indicated by the arrows in Figure 3.
WARNING: Never use needles, wires, or similar cylindrical objects to clean the pilot to avoid damaging the calibrated ruby that controls the gas flow.
10 Apply air pressure (max. 30 psi) into ceramic tile of burner(s) assembly and the venturi tube (with [2] air openings) to remove dust, lint or spider webs.
11 Reinstall lower baffle with (3) screws
12 Slide back cover over (2) plastic hooks on top of heater. Make sure rear cover aligns with plastic side covers. Install (4) screws to hold in place.

TROUBLESHOOTING INFORMATION:

If Spark electrode does not produce spark.

CHECK

- Spark electrode broken – replace.
- Igniter wire may not be attached to spark electrode – attach.
- Igniter wire damaged – replace.
- Piezo igniter on control valve defective – replace control valve.

If Spark electrode produces spark but pilot does not light.

CHECK

- No gas to heater – install disposable cylinder or connect hose and fuel filter then turn on valve at remote cylinder.
- "PILOT" position not properly aligned – turn gas control knob to "PILOT" position and depress.
- Pilot is blocked from spider web or dirt – clean pilot, see MAINTENANCE.

If Pilot flame does not stay lit when knob is released.

CHECK

- Control knob in "PILOT" position not completely depressed or held in long enough to purge air from lines.
- Pilot flame not surrounding thermocouple – clean pilot, see MAINTENANCE.
- Pilot Assembly defective – replace.
- Tip switch wires disconnected – connect.

If Main burner(s) does not ignite.

CHECK

- Main burner(s) orifice is blocked – clean burner(s), see MAINTENANCE.

If Heater keeps shutting "OFF" during normal operation.

CHECK

- Pilot is blocked – clean pilot, see MAINTENANCE.
- Provide minimum fresh air opening of 18 square inches (example 4 1/4" x 4 1/4" opening).
- Tip over switch activated from bumping heater. Re-light

PARTS LIST:

SEE BACK PAGE FOR PARTS ORDERING INFORMATION

REF. #	ITEM #	DESCRIPTION
	Big Buddy	
1	78402	HANDEL, ASSEMBLY
2	78403	FAN, SWITCH
3	78404	BACK, FAN, COVER
4	78405	FAN, MOTOR
5	78406	FAN, BLOWER, WHEEL
6	78407	FAN, INTAKE, COVER
7	78408	DOOR, BATTERY, COVER
8	78409	BATTERY, TERMINALS
9	78410	DOOR LEFT SIDE COVER
10	78411	LEFT, SIDE, COVER
11	78451	REGULATOR, MH18B, SIDE INLET
12	78453	BRACKET, RETAINING, REGULATOR
13	78454	BRACKET, TANK SWIVEL, LEFT
14	78452	BRACKET, MOUNTING, REGULATOR
15	78416	FRAME, ASSEMBLY
16	78455	BRACKET, TANK SWIVEL, RIGHT
17	78418	KNOB, CONTROL
18	78419	DOOR, RIGHT, SIDE, COVER
19	78420	RIGHT, SIDE, COVER
20	78421	VALVE, CONTROL, ASSEMBLY
21	78422	PILOT, ASSEMBLY
22	78423	SHIELD, HEAT, BACK
23	78424	SHIELD, HEAT, FRONT
24	78425	COVER, FRONT
25	78426	GUARD, WIRE, FACE
26	78427	BRACKET, BOTTOM, PLENUM ASS'Y
27	78428	PILOT, BRACKET
28	78429	REFLECTOR
29	73439	TILE
30	73433	TILE, GASKET (NOT SHOWN)
31	78431	PLENUM, BODY
32	78432	BRACKET, TOP, PLENUM ASS'Y
33	78439	SWIVEL, TANK (2)
34	78440	ADAPTER, TANK (2)
35	78462	COVER, TANK ADAPTER, LEFT
36	78463	COVER, TANK ADAPTER, RIGHT
37	78460	QUICK DISCONNECT

ACCESSORIES

	ITEM#	DESCRIPTION
RECOMMEDED	F271802	12 ft. PROPANE HOSE ASSEMBLY w/quick disconnect fittings and 3/8" female flare fitting
	F271803	12 ft. PROPANE HOSE ASSEMBLY w/quick disconnect fittings and 11" W.C. regulator w/Acme nut.

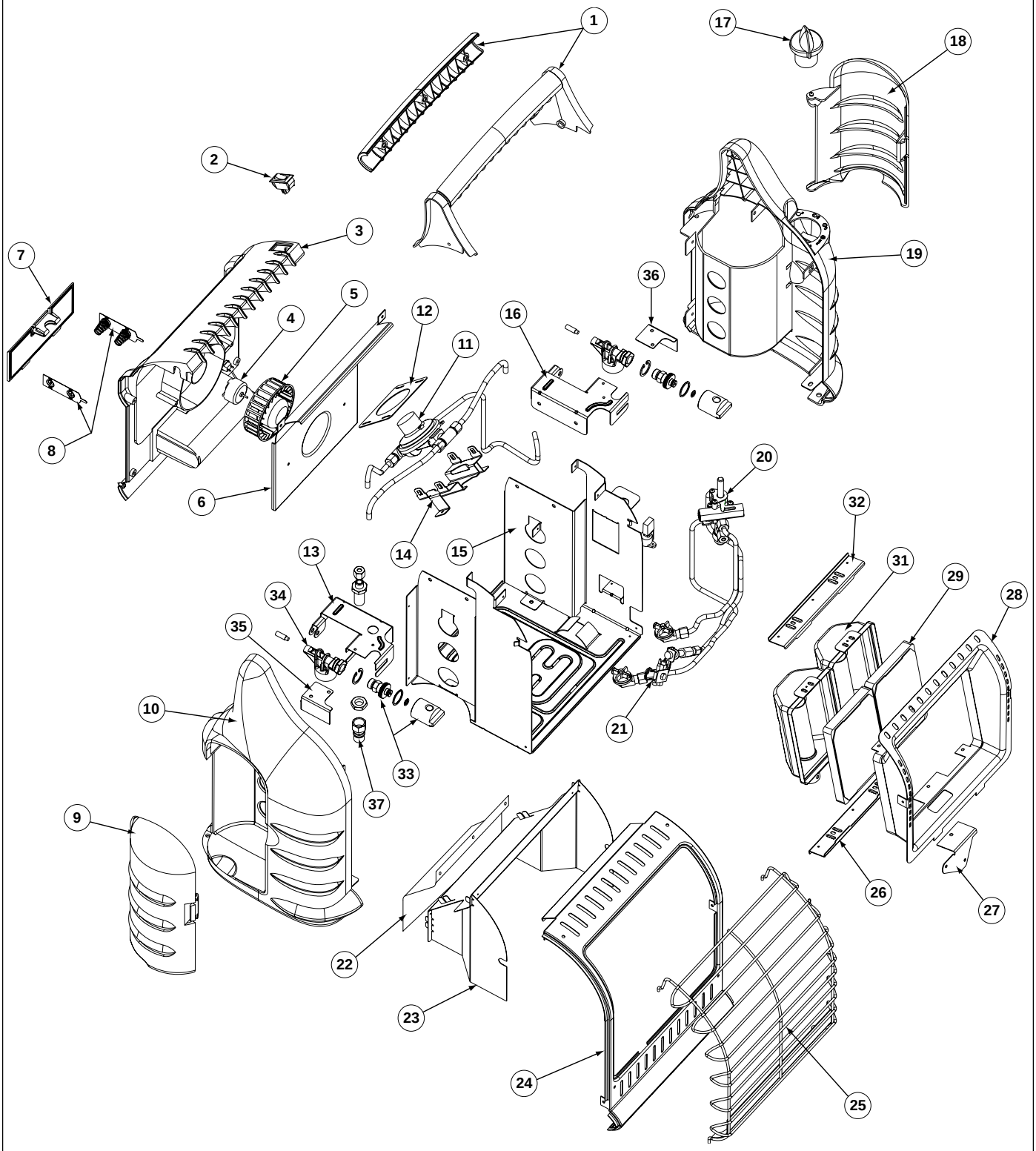
The following hose assemblies can also be used (with fuel filter F273699).

F273699 Fuel Filter (Replace Annually)

F273701 - 5 ft. PROPANE HOSE ASSEMBLY (Swivel 1"- 20 Male Throwaway Cyl. Thd. X P.O.L. w/Handwheel)

F273702 - 12 ft. PROPANE HOSE ASSEMBLY (Swivel 1"- 20 Male Throwaway Cyl. Thd. X P.O.L. w/Handwheel)

F272702 - 12 ft. PROPANE HOSE ASSEMBLY (Swivel 1"- 20 Male Throwaway Cyl. Thd. X P.O.L. w/Handwheel)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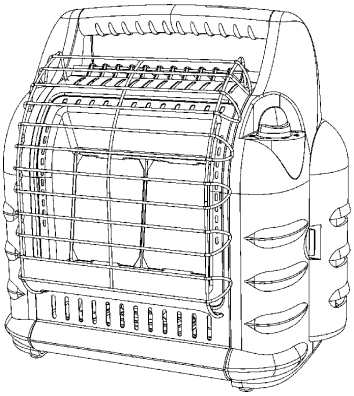
OPERATING INSTRUCTIONS AND OWNER'S MANUAL

Model #
MH18B



BIG Buddy
Tough Buddy

WARNING:

USE ONLY MANUFACTURER'S REPLACEMENT PARTS. USE OF ANY OTHER PARTS COULD CAUSE INJURY OR DEATH. REPLACEMENT PARTS ARE ONLY AVAILABLE DIRECT FROM THE FACTORY AND MUST BE INSTALLED BY A QUALIFIED SERVICE AGENCY. MR. HEATER HOSES F273701 F273702 AND F272702 ARE SPECIFICALLY DESIGNED FOR USE WITH THIS HEATER ALONG WITH F273699 DISPOSABLE FUEL FILTER. (REPLACE ANNUALLY). USE OF OTHER HOSES MAY CAUSE THE HEATER TO BECOME INOPERABLE.

PARTS ORDERING INFORMATION:

PURCHASING: Accessories may be purchased at any Mr. Heater local dealer or direct from the factory

FOR INFORMATION REGARDING SERVICE

Please call Toll-Free 800-251-0001
www.mrheater.com

Our office hours are 8:30 AM – 5:00 PM, EST, Monday through Friday.

Please include the model number, date of purchase, and description of problem in all communication.

LIMITED WARRANTY

Enerco Group, Inc. warrants its heaters and accessories to be free from defects in material and workmanship for a period of 1 year from date of purchase. Enerco Group, Inc. will repair or replace this product free of charge if it has been proven to be defective within the 1-year period, and is returned at customer expense with proof of purchase to Enerco Group, Inc. within the warranty period.

Enerco Group, Inc. reserves the right to make changes at any time, without notice or obligation, in colors, specifications, accessories, materials and models.

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